

ABSTRACT

Disclosed is a method for the preparation of a nitride semiconductor device having a nitride semiconductor layer composed of InN on which a high quality layer of a semiconductor of a nitride of a group III element typified by InN or GaN is grown as traversing dislocation or an interfacing layer is suppressed from being generated. The method includes a vapor depositing step of vapor depositing InN on the (111) plane of a yttria stabilized zirconia substrate (12) for forming the nitride semiconductor layer oriented with c-axis of an InN crystal of the hexagonal system substantially vertical with respect to the (111) plane of the substrate (12).